Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (previously presented) An intravascular catheter comprising an elongate shaft having a lumen extending therethrough, the shaft including an inner polymer layer, a reinforcement layer disposed about the inner layer and an outer polymer layer disposed about the reinforcement layer, the reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member and an axial member disposed between the first helical member and the second helical member such that the axial member is always disposed over the first helical member when the axial member crosses the first helical member, and beneath the second helical member when the axial member crosses the second helical member,

wherein the axial member limits elongation of the catheter under tension but does not substantially reduce catheter flexibility.

2. (original) An intravascular catheter as in claim 1, wherein the axial member is movable relative to the inner and outer layers.

3. (original) An intravascular catheter as in claim 1, wherein the inner and outer layers have respective inner and outer surfaces free of protrusions caused by the axial member.

4. (original) An intravascular catheter as in claim 1, wherein the first and second helical members each comprise polymeric material.

5. (original) An intravascular catheter as in claim 4, wherein the first and second helical members each comprise a plurality of monofilaments.

6. (original) An intravascular catheter as in claim 1, wherein the axial member comprises a polymeric material.

7. (original) An intravascular catheter as in claim 6, wherein the axial member comprises a plurality of polymeric monofilaments.

8. (original) An intravascular catheter as in claim 7, wherein the monofilaments are held together statically.

9. (previously presented) An intravascular catheter as in claim 8, wherein the monofilaments comprise liquid crystal polymer.

10. (original) An intravascular catheter as in claim 9, wherein the monofilaments are arranged side-by-side to collectively define a flat ribbon.

11. (original) An intravascular catheter as in claim 1, wherein the first helical member comprises a metallic material and the second helical member comprises a polymeric material.

12. (original) An intravascular catheter as in claim 11, wherein the metallic material comprises a highly radiopaque material.

13. (previously presented) An intravascular catheter comprising an elongate shaft having a reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member and an axial member disposed between the first helical member and the second helical member such that the axial member always crosses over the first helical member and under the second helical member, wherein the axial member limits elongation of the catheter under tension but does not substantially reduce catheter flexibility.

14. (original) An intravascular catheter as in claim 13, wherein the first helical member comprises a metallic material and the second helical member comprises a polymeric material.

15. (original) An intravascular catheter as in claim 13, wherein the first and second helical members each comprise polymeric material.

16. (original) An intravascular catheter as in claim 15, wherein the first and second members each comprise a plurality of monofilaments.

17. (original) An intravascular catheter as in claim 13, wherein the axial member comprises a polymeric material.

18. (original) An intravascular catheter as in claim 17, wherein the axial member comprises a plurality of polymeric monofilaments.

19. (original) An intravascular catheter as in claim 18, wherein the monofilaments are held together statically.

20. (previously presented) An intravascular catheter as in claim 19, wherein the monofilaments comprise liquid crystal polymer.

21. (original) An intravascular catheter as in claim 20, wherein the monofilaments are arranged side-by-side to collectively define a flat ribbon.

22. (cancelled)

23. (Previously Presented) An intravascular catheter comprising an elongate shaft having a lumen extending therethrough, the shaft including an inner polymer layer, a reinforcement layer disposed about the inner layer and an outer polymer layer disposed about the reinforcement layer, the reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member and an axial member disposed between the first helical member and the second helical member such that the axial member does not cross beneath the first helical member or over the second helical member,

wherein the axial member comprises a plurality of liquid crystal polymeric monofilaments that are held together statically.

24. (previously presented) An intravascular catheter as in claim 23, wherein the liquid crystal polymeric monofilaments are arranged side-by-side to collectively define a flat ribbon.

25. (Previously Presented) An intravascular catheter comprising an elongate shaft having a reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member and an axial member disposed between the first helical member and the second helical member such that the axial member does not cross beneath the first helical member or over the second helical member,

wherein the axial member comprises a plurality of polymeric monofilaments that are held together statically.

26. (previously presented) An intravascular catheter as in claim 25, wherein the polymeric monofilaments comprise liquid crystal polymer.

27. (previously presented) An intravascular catheter as in claim 26, wherein the liquid crystal polymeric monofilaments are arranged side-by-side to collectively define a flat ribbon.

28. (Previously Presented) An elongate medical device comprising an elongate shaft having a lumen extending therethrough, the shaft including an inner polymer layer, a reinforcement layer disposed about the inner layer and an outer polymer layer disposed about the reinforcement layer, the reinforcement layer comprising a tubular braid having a first helical member interwoven with a second helical member, the first helical member defining a portion of a first helical member layer extending the length of the tubular braid, the second helical member defining a portion of a second helical member layer extending the length of the tubular braid, and an axial member positioned between the first helical member layer and the second helical member layer such that the axial member always crosses over the first helical member and under the second helical member.

29. (previously presented) An elongate medical device comprising a reinforcing layer, the reinforcing layer including a first member and a second member forming a braid, with an

axial member disposed within the reinforcing layer between the first member and the second member such that the axial member always crosses over the first member and under the second member.